

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Contact
dashed where gradational
or approximately located

↗ anticline
↘ syncline

Axis of fold
arrow on axis indicates
direction of plunge

30° inclined
/ inclined (approximate)
| vertical

70° overturned
Strike and dip of strata

⊙ fossil locality

Qa Qls
Surficial deposits
Qa; alluvium
Qls; landslide debris

Unconformity

Qoa

Older alluvium

Unconformity

Qtu

Tulare (?) Formation

Alluvial gravel,
sand and clay

Unconformity

Tps

Tpc

Nonmarine sedimentary
rocks

Tps; gray pebble-
cobble conglomerate
and sand

Tpc; gray clay or
mudstone

Tn

Neroly (?) Formation

Nonmarine gray to
blue friable
sandstone

Unconformity

Tk

Kreyenhagen Shale

Marine clay shale
and siltstone

Td

Domengine (?) Sandstone
(marine)

Tte₄

Tte₃

Tte₂

Tte₁

Tesla Formation
(Marine and (?) brackish-
marine)

Tte₄; mudstone,
siltstone,
and fine-grained
sandstone

Tte₃; white, quartzose
sandstone

Tte₂; sandy siltstone

Tte₁; medium to fine-
grained sandstone

Kms

Moreno Shale
(marine)

Km; micaceous
clay shale

Kms; light tan,
arkosic
sandstone

Kps

Kp

Panoche Formation
(marine)

Kps; light tan, hard,
slightly micaceous
arkosic sandstone,
bedded; contains
some large concretions
and minor
interbedded shale

Kp; gray micaceous
clay shale; minor
thin sandstone
beds

References

Bishop, C.C., 1970, Upper
Cretaceous stratigraphy
of the west side of the
northern San Joaquin Valley,
Stanislaus and San Joaquin
Counties, California;
California Division Mines
and Geology Special Report
104, 29 p.

This map is preliminary and has
not been reviewed for conformity
with U.S. Geological Survey
editorial standards and
stratigraphic nomenclature.

Geology mapped by T.W. Dibblee, Jr. (1974);
in part modified from C.C. Bishop (1970), and
H.S. Sonneman and J.R. Switzer, Jr., unpublished data

PRELIMINARY GEOLOGIC MAP OF THE PATTERSON QUADRANGLE, STANISLAUS COUNTY, CALIFORNIA

by

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1982